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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/933,534	08/20/2001	David A. Grilli	TRW(AP)5727	5816

26294 7590 08/15/2003

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526 SUPERIOR AVENUE, SUITE 1111  
CLEVEVLAND, OH 44114

EXAMINER

SMITH, JULIE KNECHT

ART UNIT	PAPER NUMBER
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3682

DATE MAILED: 08/15/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/933,534

Applicant(s)

GRILLI ET AL.

Examiner

Julie K Smith

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 09 June 2003.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-37 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-37 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 August 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                             | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____  |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)         | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: _____                                    |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-4, 7-8, 11-13, 15, 18-22, 24, 27 and 28 are rejected under 35 U.S.C. 102(e) as being anticipated by Reidy et al. (6,386,579). Reidy et al disclose a steering wheel with a rim portion (8), a spoke portion (9), and a foamed padding material, adhered to the rim and spoke portions, having a first portion (16) with a substantially uniform cell density and a second portion (15) with a continuous external surface free of interruption by a cell, the padding material comprising a gasified chemical foaming agent (see col. 4, lines 20-60) and a thermoplastic elastomer, such as plasticizer-free polypropylene, with a shore hardness of about 30-90. The foaming agent is either exothermic or endothermic and includes a colorant. The wheel is manufactured by injection molding. The elastomer and chemical foaming agent are mixed, the mixture foamed and then adhered to a steering wheel armature to form the padding material. The elastomer is melted to fit the mold.

*Claim Rejections - 35 USC § 103*

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 5-6, 13-14 and 22-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Reidy et al. as applied to claims 1-4, 7-8, 11-13, 15, 18-22, 24, 27 and 28 above, and further in view of Oseroff et al. (3,950,838). Reidy et al. disclose the claimed invention except for the thermoplastic composition of the foamed padding material. However, Oseroff et al. teach that it is known in the art to provide a steering structure with a foamed padding material comprising a thermoplastic elastomer of polypropylene further including another thermoplastic elastomer, such as EPM or EPDM.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the foamed padding of Reidy et al. with the teachings of Oseroff et al. to have a blend of elastomers as it is old and well known in the art to use a blend in a foamed steering wheel padding. Moreover, Reidy et al. state that other thermoplastic elastomers may be used in the foamed padding.

5. Claims 9-10, 16-17 and 25-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Reidy et al. as applied to claims 1-4, 7-8, 11-13, 15, 18-22, 24, 27 and 28 above, and further in view of Braun et al. (WO 99/10419). Reidy et al. disclose the claimed invention except for

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the encapsulation of the foaming agent. However, Braun et al. disclose that it is known in the art to provide an impregnated polyolefin granule containing a foaming agent.

Therefore, it would have been obvious to one of ordinary skill in the art to provide the foaming agent of Reidy et al. within a capsule, as taught by Braun et al. in order to avoid contamination of the surroundings.

6. Claims 29-32, 35 and 37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Reidy et al. in view of Clarke (5,985,191). Reidy et al. disclose the claimed invention except for varying the temperature of the mold over different portions. Clarke teaches molding an article by using temperature variations to control the degree of foaming in different sections of an article.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the mold of Reidy et al. with walls of varied temperature to ensure the lesser density reduction in the airbag cover. Moreover, it is old and well known in the thermoplastic molding art to vary the temperature of the mold to obtain specific properties, such as density.

7. Claims 33 and 34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Reidy et al. in view of Clarke as applied to claims 29-32, 35 and 37 above, and further in view of Oseroff et al. Reidy et al. disclose the claimed invention except for the thermoplastic composition of the foamed padding material. However, Oseroff et al. teach that it is known in the art to provide a steering structure with a foamed padding material comprising a thermoplastic

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elastomer of polypropylene further including another thermoplastic elastomer, such as EPM or EPDM.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the foamed padding of Reidy et al. with the teachings of Oseroff et al. to have a blend of elastomers as it is old and well known in the art to use a blend in a foamed steering wheel padding. Moreover, Reidy et al. state that other thermoplastic elastomers may be used in the foamed padding.

8. Claim 36 is rejected under 35 U.S.C. 103(a) as being unpatentable over Reidy et al. in view of Clarke as applied to claims 29-32, 35 and 37 above, and further in view of Braun et al. Reidy et al. disclose the claimed invention except for the encapsulation of the foaming agent. However, Braun et al. disclose that it is known in the art to provide an impregnated polyolefin granule containing a foaming agent.

Therefore, it would have been obvious to one of ordinary skill in the art to provide the foaming agent of Reidy et al. within a capsule, as taught by Braun et al. in order to avoid contamination of the surroundings.

### ***Response to Arguments***

9. Applicant's arguments filed 6/9/03 have been fully considered but they are not persuasive.

Regarding claims 1, 12 and 19, Applicant argues that Reidy et al. do not teach a padding material comprising a thermoplastic elastomer and a gasified foaming agent. However, it is

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clearly stated in Reidy et al. that the steering wheel padding is made from a variety of thermoplastic elastomers comprising a foaming agent that generates a gas that expands and creates the foam (see col. 4).

Although Reidy et al. shows Fig. 4 where there are cells in both portion of the steering wheel, columns 7 and 8 disclose tests that were done where no cells were formed in a portion of the padding.

Regarding claim 10, Applicant argues that the Reidy et al. reference teaches away from using an olefinic carrier that is the same material as the thermoplastic granules. However, although Reidy et al. states that there are adhesion problems with using an olefinic carrier, the reference does not state that it is impossible. Moreover, the disclosure of the carrier structure in Reidy et al. proves that using an olefinic carrier and thermoplastic granules of the same material has been done before and is known in the art. Braun et al. further teaches that using an olefinic carrier is known.

Regarding claim 29, although Clarke does not teach a steering wheel being manufactured using the claimed molding method, he states that other articles, not necessarily a cup, may be made using the same temperature controlled molding technique.

### *Conclusion*

10. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO**



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MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Julie K Smith whose telephone number is 703-305-3948. The examiner can normally be reached on Monday-Friday, 8-5:30, (Every other Friday off).

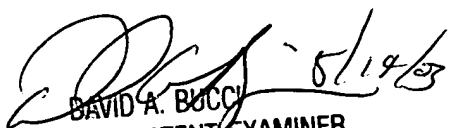
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David A Bucci can be reached on 703-308-3668. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-1113.

JKS

jks

August 13, 2003

  
DAVID A. BUCCI  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 3600